What Is Claimed Is:

1. A field-deployable solid phase microextraction kit comprising:

a casing having a lid section, and at least a plurality of hermetically sealed transport tubes located in said casing,

each transport tube securely retaining a solid phase microextraction (SPME) fiber syringe assembly.

- 2. The kit of Claim 1, wherein each of said transport tubes includes means for allowing sampling of an environment within said transport tubes.
- 3. The kit of Claim 1, wherein each said fiber/syringe assembly includes a fiber protective cap.
- 4. The kit of Claim 3, additionally including a fiber protective cap extraction tool.
- 5. The kit of Claim 1, additionally include at least spare parts for said transport of tubes, at least one spare SPME fiber/syringe assembly, protective gloves and an instruction manual.
- 6. The kit of Claim 1, wherein said casing and said lid section are constructed so as to form an airtight interior.
- 7. The kit of Claim 1, wherein said transport tubes are constructed of anodized aluminum.
- 8. The kit of Claim 1, additionally including a tray containing a plurality of transport tubes removably positioned in said casing.
- 9. The kit of Claim 1, wherein each of said transport tubes include a septum mounted in one end through which the interior of the transport tubes may be tested.
- 10. The kit of Claim 1, wherein said transport tubes are composed of two interconnected sections constructed to he hermetically sealed, each of said two

sections having openings therein constructed to secure the SPME fiber/syringe assembly therein.

- 11. The kit of Claim 10, wherein said two interconnected sections of said transport tubes are secured together by a twist/lock arrangement.
- 12. The kit of Claim 10, additionally including at least one seal in said two interconnected sections.
- 13. The kit of Claim 12, wherein one of said two interconnected sections include an end section which extends into the other of said two interconnected sections, and wherein said seal comprises a pair of spaced O-ring mounted in its end section and constructed to contact an internal surface of said other said two interconnected sections.
- 14. The kit of Claim 1, additionally including a tool for removing and inserting a protective cap on a fiber of said SPME fiber/syringe assembly.
- 15. The kit of Claim 1, wherein said tool comprises a housing having a spring mounted plunger therein, said plunger having an opening therein, and said housing having an opening constructed to align with said opening in said plunger, whereby a protective cap is retained in said openings in said housing and said plunger by movement of said plunger, is released from being retained in said housing and said plunger by movement of said plunger.
- 16. In an SPME kit, the improvement comprising; at least one hermetically sealed transport tube for a SPME fiber/syringe assembly,

said transport tube having a configured interior corresponding to an exterior of the SPME fiber/syringe assembly, whereby said assembly is secured within said transport tube.

said transport tube including a seal in one end through which an interior of said transport tube could be tested

- 17. The improvement of Claim 16, additionally including a protective cap for the fiber of said SPME fiber/syringe assembly.
- 18. The improvement of Claim 17, additionally including a tool for removing said protective cap from said fiber and reinstalling said protective cap on said fiber.
- 19. The improvement of Claim 16, wherein said at least one transport tube includes two interconnected sections, means for securing said two sections together, and a sealing arrangement located intermediate said two interconnected sections.